AMENDMENTS TO THE CLAIMS

Please add new claims 20-23. Please amend claims 1-3, 5, 9-11, and 19 as follows:

1. (Currently Amended) A method of determining inventory levels of parts for a plurality of stocking locations, said method comprising ~~the steps of~~:

providing data for a plurality of customer locations, unit price of said parts, request rates for each of said parts for each of said customer locations, handling costs for each of said stocking locations, and travel time and transportation cost between said stocking locations;

specifying a parts procurement time performance measure <u>for transfer of said parts from said plurality of stocking locations to said plurality of customer locations</u>;

entering said data and said performance measure into an optimization computer program;

computing said inventory levels of said parts for said plurality of stocking locations using said optimization computer program; and

ordering sufficient numbers of said parts to maintain said inventory levels at said plurality of stocking locations<u>, wherein said inventory levels are such that said performance measure is met</u>.

2. (Currently Amended) The method of claim 1, wherein said data for ~~a~~ said plurality of customer locations includes travel time and cost to transfer a part from each of said plurality of stocking locations to each of said customer locations.

3. (Currently Amended) The method of claim 1, wherein said request rates ~~includes~~ include a probability distribution for one or more of said request rates.

4. (Original) The method of claim 3, wherein said probability distribution is a Poisson distribution.

5. (Currently Amended) The method of claim 1, wherein said ~~part~~ parts procurement time performance measure comprises the percentage of parts in said request rates which can be transferred from any said stocking location to each ~~said~~ respective said customer location within a pre-specified time.

6. (Original) The method of claim 5, wherein said parts are grouped by importance into a plurality of groups and said pre-specified time comprises a corresponding plurality of times.

7. (Original) The method of claim 6, wherein inventory levels are computed to minimize overall cost while meeting or exceeding said plurality of times.

8. (Original) The method of claim 1, wherein said optimization computer program is a mixed integer optimization program.

9. (Currently Amended) The method of claim 1, wherein said inventory levels are computed to meet a total inventory cost while maximizing the percentage of said parts in said request

4   rates which can be transferred from any said stocking location to
5   each respective said customer location within ~~said~~ a
6   pre-specified time.

10. (Currently Amended) The method of claim 1, further comprising
~~the step of~~ computing the estimated time for each part to be
transferred from any said stocking location to each respective
said customer location for each of said parts in said request
rates.

11. (Currently Amended) A computer implemented method of
specifying parts inventory levels for a network of stocking
locations, said method comprising ~~the steps of~~:

4   providing data for a plurality of customer locations, unit price
5   of said parts, request rates for each of said parts for each of
6   said customer locations, handling costs for each of said stocking
.7 locations, and travel time and transportation cost between said
8   stocking locations;

9   specifying a parts procurement time performance measure <u>for</u>
10 <u>transfer of said parts from said network of stocking locations to</u>
11 <u>said plurality of customer locations</u>;

12 formulating a mixed integer optimization model of said network;
13 and

14 entering said model on a processor to solve said mixed integer
15 model to obtain said inventory levels for each of said stocking
16 locations in said network<u>, wherein said inventory levels are such</u>
17 <u>that said performance measure is met</u>.

1   12. (Original) The method of claim 11, wherein said model
2   includes a total inventory cost constraint.

1   13. (Original) The method of claim 11, wherein said inventory
2   levels are solved to minimize overall cost while meeting or
3   exceeding said parts procurement time performance measure.

14. (Withdrawn) A computer system for controlling inventory
2   levels of parts for a plurality of stocking locations,
3   comprising:

4   a processor;

5   one or more files on said computer system containing data for a
6   plurality of customer locations, unit price of said parts,
7   request rates for each of said parts for each of said customer
8   locations, handling costs for each of said stocking locations,
9   and travel time and transportation cost between said stocking
10   locations;

11   means for computing on said processor a parts procurement time
12   performance measure;

13   an optimization computer program on said processor for
14   calculating said inventory levels of parts for said plurality of
15   stocking locations; and

16   an ordering system on said computer system for maintaining said
17   inventory levels at said plurality of stocking locations.

1   15. (Withdrawn) The system of claim 14, wherein said data for a
2   plurality of customer locations includes travel time and cost to

3   transfer a part from each of said plurality of stocking locations

4   to each of said customer locations.

1   16. (Withdrawn) The system of claim 14, wherein said request

2   rates includes a probability distribution for one or more of said

3   request rates.

1   17. (Withdrawn) The system of claim 14, further comprising a

2   mixed integer model of said network.

1   18. (Withdrawn) The system of claim 17, wherein said model is

2   formulated to minimize overall cost while meeting or exceeding a

3   pre-specified parts procurement time performance measure.

1   19. (Currently Amended) A computer program product for

2   instructing a processor to determine inventory levels of parts

3   for a plurality of stocking locations, said computer program

4   product comprising;

5   a computer readable medium;

6   first program instruction means for providing data for a

7   plurality of customer locations, unit price of said parts,

8   request rates for each of said parts for each of said customer

9   locations, handling costs for each of said stocking locations,

10   and travel time and transportation cost between said stocking

11   locations;

12   second program instruction means for specifying a parts

13   procurement time performance measure <u>for transfer of said parts</u>

14   <u>from said plurality of stocking locations to said plurality of</u>

15   <u>customer locations</u>;

third program instruction means for entering said data and said
performance measure into an optimization computer program;

fourth program instruction means for computing said inventory
levels of said parts for said plurality of stocking locations
using said optimization computer program; and

fifth program instruction means for ordering sufficient numbers
of said parts to maintain said inventory levels at said plurality
of stocking locations, wherein said inventory levels are such
that said performance measure is met; and wherein

all said program instruction means are recorded on said medium.

20. (New) A method of determining inventory levels of parts for a
plurality of stocking locations, said method comprising:

providing data for a plurality of customer locations, unit price
of said parts, request rates for each of said parts for each of
said customer locations, handling costs for each of said stocking
locations, and travel time and transportation cost between said
stocking locations;

specifying a parts procurement time performance measure, wherein
said parts procurement time performance measure comprises the
percentage of parts in said request rates which can be
transferred from any said stocking location to each said
respective customer location within a pre-specified time;

entering said data and said performance measure into an
optimization computer program;

15   computing said inventory levels of said parts for said plurality

16   of stocking locations using said optimization computer program;

17   and

18   ordering sufficient numbers of said parts to maintain said

19   inventory levels at said plurality of stocking locations.

21. (New) The method of claim 20, wherein said parts are grouped
by importance into a plurality of groups and said pre-specified
time comprises a corresponding plurality of times.

22. (New) The method of claim 21, wherein inventory levels are
computed to minimize overall cost while meeting or exceeding said
plurality of times.

23. (New) A method of determining inventory levels of parts for a
plurality of stocking locations, said method comprising:

3   providing data for a plurality of customer locations, unit price

4   of said parts, request rates for each of said parts for each of

5   said customer locations, handling costs for each of said stocking

6   locations, and travel time and transportation cost between said

7   stocking locations;

8   specifying a parts procurement time performance measure;

9   entering said data and said performance measure into an

10   optimization computer program;

11   computing said inventory levels of said parts for said plurality

12   of stocking locations using said optimization computer program,

13   wherein said inventory levels are computed to meet a total

14   inventory cost while maximizing the percentage of said parts in

15   said request rates which can be transferred from any said

16   stocking location to each respective said customer location

17   within a pre-specified time; and

18   ordering sufficient numbers of said parts to maintain said

19   inventory levels at said plurality of stocking locations.